ABSTRACT OF THE DISCLOSURE

A charge storage layer (112) in a gate insulating film of a cell transistor is so formed as not to extend from a channel region of a cell to an element isolation region. Since no electric charge moves from the charge storage layer (112) on the channel onto the element isolation region, the charge retention characteristics improves. Unlike a gate insulating film of a cell transistor, a gate insulating film of a selection transistor is formed without including the charge storage layer (112). This stabilizes read operation because the threshold value of the transistor does not vary. Of peripheral transistors, a thick gate oxide film is formed for a transistor requiring a high-breakdown-voltage gate oxide film, and a thin gate oxide film is formed for a transistor requiring high drivability. This realizes a high operating speed.